DI-81-02

Ontario Drivers' Knowledge of and Attitudes Toward the Demerit Point System

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Published by:
The Policy Planning and Research Division
Ontario Ministry of Transportation and Communications
Hon. James W. Snow, Minister
H.F. Gilbert, Deputy Minister

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December 1981

ACKNOWLEDGEMENTS

The authors would like to thank the following individuals for their assistance in the study: Brian Deslauriers, David Duncan, Susan Maxwell, and Joy McLeod.

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EXECUTIVE SUMMARY

A. PURPOSE AND METHOD

Three focus groups consisting of 12 drivers each and a telephone survey of 1,000 Ontario drivers were conducted to determine their knowledge and attitudes toward the Demerit Point System. From the experience with the focus groups, the survey items were developed to provide baseline data about the knowledge and attitudes of Ontario drivers who have had exposure to various aspects of the Demerit Point System. Also of special interest is the extent to which the system functions as a general or special deterrent. A general deterrent would be evident if the system is found to affect the general population of drivers who have not previously had a violation. A special deterrent would be indicated if the system is found to affect only those drivers who have come into contact with the system through a letter, interview, or licence suspension.

In the design of this exploratory study, drivers with varying numbers of points were sampled to create three categories of drivers:

Group A - drivers with no current demerit points;
Group B - drivers with 1 to 5 demerit points; and,
Group C - drivers with 6 or more demerit points.

Drivers in Groups A and B have not had contact with the system, whereas Group C drivers would have at least received a warning letter at six points.

Drivers in all groups were selected from a list of 5,000 drivers randomly selected by the Ministry of Transportation and Communications from the province's 5 million licenced drivers. Group A drivers were selected on the basis of geographic region, as well as sex, whereas Groups B and C were randomly selected from the list of 5,000.

B. RESULTS

The results of the focus groups and the telephone survey reinforced each other. A major finding of the study is that the potential impact of the Demerit Point System as a special deterrent is greater

than its potential impact as a general deterrent. This conclusion is based on the findings that:

1. Drivers with more demerit points are more knowledgeable about specific aspects of the Demerit Point System, and about each of the special deterrents;
2. Drivers' awareness of their personal demerit point total increases with increasing points (i.e. those who received special deterrents were more aware); and,
3. Drivers with more demerit points are more likely to indicate that the system influences their driving. (More drivers with six or more points feared the loss of their licence.)

Other findings from the survey regarding drivers' knowledge are:

1. The vast majority of drivers (over 95%) are aware of the existence of the Demerit Point System. However, there is also evidence of a lack of understanding about some basic characteristics of the system:

    a) A sizeable portion of drivers (approximately one-third) are confused about the starting point of the Demerit Point System (zero or fifteen points);
    b) Most drivers (about four-fifths) are unaware that the Demerit Point System applied only to moving violations;
    c) Drivers are relatively unaware of the number of points associated with the warning letter - the first special deterrent they are likely to encounter.

With regard to driver attitudes and opinions, the study revealed that:

1. Most drivers felt the Demerit Point System was designed both to make everyone a safe driver (general deterrent) and to improve the performance of drivers with many violations (special deterrent).

2. Drivers with the most points were most likely to disagree with the suggestion that police enforcement of traffic regulations should be increased.

3. Drivers with the most points were also most likely to disagree that the police are fair and reasonable when enforcing traffic regulations.

4. Drivers with the most points were least likely to endorse several suggestions for getting drivers to drive more safely.

5. Drivers with the most points have a higher tolerance for risky driving situations, as evidenced by:

   a) their higher scores on the Danger Scale (which assigns dangerousness rating to various hypothetical driving situations); and,
   b) their assignment of lower severity ratings (number of demerit points assigned) to various violations.

6. The majority of drivers in each group were in agreement:

   a) that drivers should be officially notified each time they receive points for a traffic violation (more than 80% in all cases); and,
   b) that there should be more publicity regarding the Demerit Point System (more than 72% in all cases).

7. The best predictors of whether a driver has few or many demerit points are:

   a) the Overall Knowledge Scale (based on the combined knowledge items in the survey); and,
   b) the Severity Index (based on the number of points drivers felt <u>should</u> be given for various violations).

N.B. Drivers who have more demerit points are more knowledgeable about the Demerit Point System, and are more likely to feel that fewer demerit points should be imposed for any particular violation.

REPORT ON ONTARIO DRIVERS' KNOWLEDGE AND ATTITUDES OF THE DEMERIT POINT SYSTEM

1/ OBJECTIVES OF STUDY

This study is part of an ongoing project within the Ministry of Transportation and Communications, concerned with the impact of the Demerit Point System on Ontario drivers. Also of special interest is the extent to which the system functions as a general or special deterrent. A general deterrent would be evident if the system is found to affect the general population of drivers who have not previously had a violation. A special deterrent would be indicated if the system is found to affect only those drivers who have come into contact with the system through a letter, interview or licence suspension. The general purpose of the present study was to obtain baseline data regarding:

a) drivers' knowledge of the Demerit Point System, both generally and for specific information;
b) drivers' knowledge of their own point status and violations incurred; and,
c) drivers' attitudes toward the Demerit Point System in general, and its impact on them personally.

The specific objectives of the study were:

1. To determine the attitudes and knowledge of Ontario drivers regarding the purposes and intentions of the Demerit Point System (why such a system exists).

2. To determine the specific level of knowledge among various groups of Ontario drivers regarding the operations of the system (<u>What</u> action is taken with a particular violation? <u>How</u> is this action accomplished?)

3. To determine Ontario drivers' attitudes toward the system regarding:
   a) the need for such a system;
   b) the current operations of the system;

3. c) the effectiveness of the system in general; and,
   d) the impact of the system on them personally.

4. To determine what Ontario drivers think the system should be accomplishing, concerning the general driving public and/or problem drivers in particular.

5. To determine how knowledgeable Ontario drivers are concerning their own status vis-a-vis the point system.

2/ THE STUDY APPROACH

The approach taken for this study involved three main components:

1. Literature Review - The consultants reviewed materials provided by the Ministry in the areas of driver improvement, sanctions and deterrents. The main purpose of the review was to assist the study team in delineating the set of variables to be used in conducting the focus groups.

2. Focus Groups - Three focus groups were conducted consisting of three types of drivers as identified by Ministry personnel:

   Group A - Drivers who, at the time of the study, did not have any demerit points (no contact with system*).
   Group B - Drivers who, at the time of the study, had from 1 to 5 demerit points (no contact with system).
   Group C - Drivers who, at the time of the study, had 6 or more demerit points (contacted by system).

   The purpose of the focus groups was to explore, with the samples of drivers from each of the three groups, their reactions and responses to the basic issues of interest in this study. Their responses were then used to help the consultants in developing specific items for the telephone survey. A summary of the focus group findings, along with the agenda of the meeting, are included in Appendix 'A'.

* Contact with system occurs by letter at 6 points, interview at 9 points, and automatic licence suspension at 15 points.

3. Telephone Survey Methodology - The primary purpose of both the literature review and the focus groups was to assist in the design of the telephone survey. An overview of the procedures involved in the construction and development of the questionnaire follows:

A. Developing and Pre-testing the Survey Items

Based on the literature review, focus group experience and discussions with Ministry officials, the consultants developed an item pool to tap the various issues of interest. In order to assure that the survey could be conducted in a precise and reliable fashion, the survey was pre-tested in a two-stage process:

1. face-to-face interviews were conducted with five drivers each from Groups A, B, and C; and,
2. telephone interviews were conducted with five drivers from each group.

The acceptance of the final item pool was based on the consistency of item interpretation and clarity of the responses of the pre-test respondents. The field version of the survey was developed with the collaboration and approval of Ministry officials, and is presented in Appendix 'B'.

B. Interviewer Training and Supervision

All telephone interviewers were selected because of their experience and ability to conduct telephone interviews in a consistent and precise manner. A training session was conducted with all interviewers prior to the survey to ensure consistent item reading, interpretation and response coding. It was the study team's intention to use on-line monitoring in 10 percent of all interviews. This was not possible due to the lack of phone monitoring systems at the Ministry, from where the survey was conducted. The interviewers were supervised at all times by a full-time supervisor, during the 400 hours required to complete the survey. Ministry personnel were also on hand for the duration of the interviews.

C. Telephone Survey Sampling

A total of 1,000 Ontario drivers was required for the survey. The actual number of respondents totalled 1,004. These drivers were identified from a list of approximately 5,000 names of Ontario drivers supplied by MTC. These 5,000 drivers were randomly chosen from the almost five million drivers in the province. From the names supplied, samples were created to meet the requirements of group membership, sex and Ontario location. Table 1 presents an overview of the actual sample characteristics, compared with the sample requirements. The following sampling requirements were determined by the Ministry:

From Group A (no points): 600 drivers were required, including 400 from Southern Ontario and 200 from Northern Ontario (as defined by postal codes beginning with 'P'). An equal number of men and women were to be included from each region, with the actual numbers drawn from each section of the province, based on the number of licenced drivers in that section.

From Groups B & C (1 to 5, and 6 or more points, respectively): 200 drivers were required for each group with no restrictions on the basis of sex or region. For each group, the drivers were randomly selected from the lists provided.

As indicated in Table 1, the actual number of respondents for each group, as well as the sex and region requirements for Group A was almost a perfect population/sample match. The population in this case was based on the list of 5,000 drivers provided by the Ministry. As indicated in Table 1,

the area that provided the greatest difficulty was the North region for Group A females. The requirements calling for 100 females in that particular group and region could not be met since only 96 females could be located out of a total of 124 females available for that cell of the sample. It was very fortunate that 68 females in that cell completed the survey, which represents a response rate of 71 percent.

D. Limitations of Study Design

The present study is considered to be a preliminary investigation of a priority topic for the Ministry -- improving the safety of Ontario drivers. As a preliminary study, it is limited in the types of issues addressed and in the methods used. In order to put this exploratory investigation into perspective, the limitations of the study design are identified:

1. Sample Size: Although large enough for a preliminary study, the sample size does not allow for:
   a) a large number of drivers with many violations to be included (because they occur infrequently in a random sample); and,
   b) the development of sub-groups for analysis (e.g. drivers with particular knowledge and attitude characteristics).
2. Time Limits: While the telephone survey is the best method for a preliminary study of this nature, it has certain limitations:
   a) interviewees will participate for only a brief period of time (in this case, interviews were designed to last an average of 15 minutes); and,
   b) this restricts the number of items which can be addressed, and a preliminary study is appropriately interested in breadth, rather than depth in any particular area, (demographic and driver characteristics, as well as knowledge and attitudes).

TABLE 1

REQUIRED AND OBTAINED SAMPLE CHARACTERISTICS

Group:	A				B				C			
	North		South		North		South		North		South	
	M*	F*	M	F	M	F	M	F	M	F	M	F
Available Sample**	181	123	1368	1149	49	12	657	176	68	3	637	69
Required***	100	100	200	200	--	200	Overall	--	--	200	Overall	--
Obtained	94	68	224	209	12	4	140	46	21	0	165	21
Obtained/ Available Sample %	51.9	55.3	16.4	18.2	24.5	33.3	21.3	26.1	30.9	0	25.9	30.4

* M - Males

* F - Females

** Available Sample was randomly selected by MTC research staff

*** Region/Sex differences were not controlled for in Groups B and C because of the small number of female drivers available from the North.

3. Time Lag: There was a time lag of a few months between the time when the sample of 5,000 drivers was drawn, and when drivers were actually surveyed. This means that a driver's point total may have changed (increased or decreased) over this period of time. Therefore, a certain percentage of drivers in each group will be incorrectly assigned. While this percentage is likely to be small and not effect the overall results of the study, care should be taken in interpreting the absolute percentages presented in the following results.

4. Reliability Check - The reliability of individual survey items is a limitation which must be considered when interpreting results. In the present study, 10 percent of the drivers surveyed were recontacted and asked two of the same questions which appeared in the original survey. One item was a knowledge question (Q.#16) and one item was an attitudinal question (Q.#35).

The number of drivers in each group varied (A=60; B=17; C=23). Group A indicated greater consistency on their attitudinal responses (r=.73), than in their knowledge (r=.24). This finding is in line with the focus group data that Group A was least knowledgeable and least consistent, but had fairly clear-cut attitudes. The consistency for Groups B and C is moderate in all cases (Group B: knowledge r=.59, attitudinal r=.52; Group C: knowledge r=.41, attitudinal r=.63). However, the sample size for Groups B and C is small and the correlation co-efficients obtained for these groups may not be accurate reflections of their consistency.

Even though the test/re-test correlations are low, the interpretation of the overall survey provides a consistent pattern. Consequently, we do not feel that the moderate correlations obtained should prejudice the confidence in the study's results.

3/ SURVEY RESULTS

The results of the survey will be presented in six sections:

1. North-South Comparisons Within Group A
2. Driver Characteristics Across Groups
3. Knowledge Characteristics Across Groups
4. Attitudinal Characteristics Across Groups
5. Predicting Group Membership with Demographic, Knowledge and Attitudinal Characteristics
6. Relationship Between Knowledge and Attitudes

3.1/ North-South Comparisons Within Group A

Prior to attempting group comparisons on each of the individual items from the questionnaire, it was necessary to determine whether there were differences between drivers in Northern and Southern Ontario within Group A. If Northern and Southern drivers were significantly different on more questionnaire items than would occur by chance, then two sub-groups would have to be formed.

To examine Group A differences, it was first necessary to apply appropriate weighting factors to the actual number of respondents within each cell of the sample. This procedure was necessary to adequately represent the sample of 5,000 drivers from which they were selected. After the appropriate weightings were applied, region and sex differences were computed for each individual response category to each questionnaire item. For example, in response to the question, "What is the main reason you use a motor vehicle?", five responses were possible. Therefore, five individual comparisons were computed for each response category.

The results of these analyses may be summarized as follows:

1. Very few significant differences were found between the Northern and Southern drivers within Group A.

2. These location differences that were found depend upon the sex of the driver. These combined sex and location differences have not been analyzed further as it is clear that no consistent pattern emerges.

Consequently, no further considerations will be given to regional differences in drivers' knowledge or attitudes to the Demerit Point System.

3.2/ Driver Characteristics Across Groups

Demographic Characteristics

a) Age

The percentage of respondents in each age category is presented in Table 2. There are significant age differences across groups ($F^*=77.7$; df. 2,904; $p<.001$). Group C contains more younger drivers than Group A, and fewer older drivers. There are over 2.5 times as many 16 to 24 year olds in Group C than in Group A.

b) Sex

Table 3 presents the number of males and females in each group. (The number of males and females in Group A was made approximately equal for comparison between the Northern and Southern regions.) Therefore, the percent of each sex cannot be compared between Group A and the other groups. However, more than twice as many females were randomly selected in Group B than in Group C, suggesting that females are less likely to accrue a large number of points.

c) Marital Status

Table 4 indicates the marital status of group members. Group C contains considerably more single individuals than Group A ($F=56$; df. 3,903; $p<.001$).

d) Occupational Status

As demonstrated in Table 5, occupational status indicates that there is a higher percentage of administrative or management, skilled craftsmen and semi-skilled workers in Group C than in

* All F tests were completed using an Analysis of Variance.

TABLE 2

ACROSS GROUP COMPARISONS OF AGE *

AGE	PERCENT GROUP A	GROUP B	GROUP C
16 to 24	10.8	23.0	26.0
25 to 29	12.4	13.5	16.8
30 to 39	24.4	25.0	29.9
40 to 49	18.4	15.0	14.0
50 to 59	16.1	11.0	6.8
60 or over	9.5	9.0	4.0

* don't know, refused, and non-applicable have not been included in tabl

TABLE 3

SEX OF DRIVERS ACROSS GROUPS

	GROUP A		GROUP B		GROUP C	
	Males	Females	Males	Females	Males	Females
N	318	277	152	50	186	21
%	53.4	46.6	75.2	24.8	89.9	10.1

TABLE 4

ACROSS GROUP COMPARISONS OF

MARITAL STATUS

MARITAL STATUS	PERCENT GROUP A	GROUP B	GROUP C
Married/ Common Law	76.3	61.4	56.5
Separated	1.7	3.5	3.9
Single/ Divorced	17.4	33.2	37.7
Widowed	4.1	1.0	1.0

TABLE 5

ACROSS GROUP COMPARISONS OF OCCUPATIONAL STATUS

OCCUPATION	PERCENT GROUP A	GROUP B	GROUP C
Administrative/Management	9.3	8.9	17.9
Professional/Semi-professional/Technical	15.6	17.3	13.5
Skilled/Craftsperson	10.2	16.3	17.9
Foreman	2.7	2.5	1.9
Semi-Skilled	7.8	6.9	10.6
Clerical	8.5	6.4	5.8
Sales	4.6	7.9	5.8
Unskilled	7.1	9.9	6.8
Truck Drivers	2.2	4.0	4.8
Taxi Drivers	---	---	1.9
Bus Drivers	.2	1.5	---
Travelling Salesperson	1.0	3.0	1.9
Retired	8.5	3.0	2.9
Student	5.9	9.4	6.3
Homemaker	15.6	2.0	.5
Disabled	---	---	---

the other two groups. Conversely, there is a smaller percentage of clerical, and unskilled workers in Group C (X^2=134.4; df. 34; $p < .0001$). Tables 6 and 7 also indicate that drivers in Group C have a higher level of education (F=30.4; df. 6,900; $p < .001$), and have a higher average family income than Groups A or B (F=36.5; df. 5,901; $p < .001$).

In summary, the data indicate that as points increase according to group membership, there is a trend towards being younger, single, having a higher education, higher family income and being in a semi-skilled, skilled or managerial occupation.

Driving Characteristics

a) Years Driving Licence Held

Table 8 presents the percentage of drivers who indicated they have held a driver's licence for varying periods. Group A contains more drivers who have held a driver's licence longer (F=22.7; df. 2,839; $p < .001$). The years a driver has held a licence is a significant predictor of group membership.

b) Kilometers Driven Per Year

The number of driver-estimated kilometers driven per year is shown in Table 9. There was a significant negative correlation (r=-.16) between the number of kilometers driven and group membership. More Group A drivers tended to log less than 16,090 kilometers per year. Only 8.1 percent of Group A drivers drove more than 32,180 kilometers per year, while 22.3 percent and 24.7 percent of Groups B and C respectively, drove more than 32,180 kilometers per year.

c) Main Use of Motor Vehicle

Drivers were asked to indicate the main reason they used a motor vehicle. Their responses are tabulated in Table 10. No significant differences were found across groups. A higher percentage of Group A drivers indicated they drove mainly for shopping and household errands (A=18.1%; B=5.9%;

TABLE 6

ACROSS GROUP COMPARISONS OF EDUCATIONAL BACKGROUND

EDUCATION	PERCENT GROUP A	GROUP B	GROUP C
Grade 8 or less	12.4	6.4	7.2
Some High School	26.4	24.3	20.8
Completed High School	24.7	30.7	33.3
Some College/University	14.0	14.4	15.0
Completed College/ University	16.6	18.8	18.4
Some Graduate Work	.7	1.5	.5
Completed Graduate Work	3.6	3.0	2.9

TABLE 7

ACROSS GROUP COMPARISONS OF TOTAL FAMILY INCOME

INCOME	PERCENT GROUP A	GROUP B	GROUP C
Under $5,000	2.2	2.0	1.9
$ 5,000 to < $10,000	8.0	4.5	4.3
$10,000 to < $20,000	26.6	22.3	22.7
$20,000 to < $30,000	27.2	31.7	32.4
$30,000 to < $40,000	16.2	18.8	13.5
Over $40,000	10.5	12.4	15.9
Refused	6.1	6.4	4.8
Don't Know	3.2	2.0	3.9

TABLE 8

YEARS DRIVER'S LICENCE HELD

YEARS	PERCENT GROUP A	GROUP B	GROUP C
1	4.2	2.5	.5
2 - 3	4.2	10.4	8.7
4 - 5	5.6	12.4	16.4
6 - 10	15.8	15.8	16.9
Over 10	70.2	58.9	57.5

TABLE 9

MILES DRIVEN PER YEAR FOR EACH GROUP

MILES* DRIVEN	PERCENT GROUP A	GROUP B	GROUP C
Under 5,000	35.0	14.3	9.6
5,000 to 10,000	30.5	19.4	21.8
11,000 to 20,000	23.3	38.3	42.0
21,000 to 35,000	4.6	14.3	15.9
36,000 to 60,000	2.9	5.5	5.3
61,000 to 100,000	.2	2.5	2.0
Over 100,000	.4	--	1.5

* Miles have been used, as the vast majority of drivers would only respond in miles.

TABLE 10

MAIN USE OF MOTOR VEHICLE FOR EACH GROUP

MAIN USE	PERCENT GROUP A	GROUP B	GROUP C
Commuting to and from work/school	39.1	48.5	44.0
Shopping/household errands	18.1	5.9	4.3
Vacation/recreational trips/ social/visiting	24.7	19.3	28.0
As part of my job	15.2	24.3	23.2
Other	1.5	.5	.5
Refused/Don't Know	.2	1.0	--

C=4.3%). This difference is accounted for by the higher percentage of older females in Group A. Groups B and C indicated they used a vehicle as part of their job more often than did Group A (A=15.2%; B=24.3%; C=23.2%).

d) Formal Driver Education

Table 11 indicates the percentage of drivers who took a formal driver education course when they first obtained their licence. There was a non-significant trend across groups for drivers with more points to have taken a high school driver education course (A=8.3%; B=10.9%; C=14.0%). There was also a trend for drivers with fewer points to have had no formal driver education.*

Predicting Group Membership with Driver Characteristics

Table 12 presents the results of a stepwise, multiple regression (MREG) of driver characteristics on group membership. A stepwise, multiple regression is a statistical procedure to explain the variation in a dependent variable (i.e. group membership) by a set of predictor variables. It is called stepwise because the procedure determines which is the best predictor of the dependent variable and continues to add the next best predictor in successive steps, as long as the explained variability in the dependent variable is increased.

The previous data indicated significant differences across groups with regard to age, marital status, occupation, education and family income. The number of years a driver has held a licence was also significantly related to group, but because of its strong relationship with age (-.76) was not included. Drivers' sex was also included as a predictor.

Although sex appears to be the best predictor of group membership, this finding is spurious due to the decreasing sample size across groups. The best predictors of group membership are age and marital status (cf Table 12, Simple R=.22 and .15, respectively).

*These trends are not indicative of any causal relationship between driver education and demerit points, which is likely due to the fact that there were more younger drivers in Groups B and C, and young people are more likely to have taken driver education.

TABLE 11

FORMAL DRIVER EDUCATION FOR EACH GROUP

DRIVER EDUCATION	PERCENT GROUP A	GROUP B	GROUP C
Yes, High School	8.3%	10.9%	14.0%
Yes, Commercial Driver Training	22.8	28.2	23.7
Yes, Other Formal Course	1.5	2.0	2.9
None	67.2	58.9	59.4

TABLE 12

MULTIPLE REGRESSION OF DRIVER CHARACTERISTICS ON GROUP MEMBERSHIP

DEMOGRAPHIC VARIABLE	SIMPLE R	MULTIPLE R	R SQUARE*
Sex	-.32	.32	.099
Age	.22	.38	.147
Marital Status	.15	.40	.157
Occupation	-.18	.41	.166
Education	.08	.41	.168
Family Income	.05	.41	.168

* R refers to correlation or co-variability;
Multiple R refers to the cumulative correlation; and,
R Square refers to the cumulative, total amount of variability accounted for.

However, relatively small amounts of the variance in group membership are accounted for by these variables. Occupation, education and family income do not add significantly to group predictability.

3.3/ Knowledge Characteristics Across Groups

The Ontario driving public's knowledge of the Demerit Point System was examined in two parts of the questionnaire:

1. Individual respondent's awareness of own point accumulation total.
2. Knowledge related to the specific operations of the system, namely:
   - point/violation relationships
   - special deterrent/point relationships

The overwhelming majority of drivers in each group indicated they had heard of the Demerit Point System (A=95.1%; B=96%; C=96.1%). When drivers were asked "Where did you first hear about the Demerit Point System?", the Ministry of Transportation and Communications was the most frequent answer (about one-third of all respondents).

Although no significant differences were found, there is a trend for Group C members to have first learned of the system by coming in contact with the police. This finding corroborates the self-reports of the Group C focus group.

Respondents' Awareness of Personal Point Total

An important issue related to the effectiveness of the Demerit Point System is how aware the driving public is regarding their personal point/violation total. If the special deterrents built into the system are effective, then the more deterrents individuals have been exposed to, the more aware they should be of their own point total. Three questions from the survey addressed this issue: Q.22 - How many demerit points are on

everyone's record when they first get their licence?; Q.23 - Presently, do you have demerit points on your record for traffic violations?; Q.24 - If so, how many demerit points do you have at this time?

Table 13 presents the results. About one-half of the drivers in each group knew that their point total started at zero. A large percentage of each group thought that their driving record started at fifteen points, and decreased to zero with each successive violation (A=24.2%; B=25.2%; C=33.3%).

There is considerable confusion among drivers in all groups concerning the initial number of demerit points. Because of this situation, it is not very illuminating to consider the percent of drivers in each group who know their exact number of demerit points. However, extrapolating from Table 13, it is clear that the majority of Group A drivers (97%) correctly identified themselves as in the zero point group. Of the Group B drivers, only 34% identified their current point total as falling within the 1-5 point range. In group C, 64% of the drivers identified their current point total as being 6 or more points. Considering that Group A drivers have an easier task of remembering they have no points, accurate knowledge of current points increases among those who have received special deterrents.

Specific Knowledge of the Demerit Point System

Seven questions were included in the survey which related to an individual's knowledge of specific aspects of the system. The questions concerned the driving public's knowledge of point/violation relationships (going through a stop sign, speeding between 30 and 50 kilometers over the limit), and special deterrent/point relationships (when warning letters, interviews and suspension occur). As well, one item was included to test the individual's knowledge of the limits of the Demerit Point System (how many points are received for having faulty brakes). (The correct answer is zero as the Demerit Point System deals only with moving

TABLE 13

RESPONDENTS' AWARENESS OF OWN DEMERIT POINTS

	PERCENT		
	GROUP A	GROUP B	GROUP C
Points on driving record when licence is first obtained?			
- Zero	45.3	57.4	55.1
- 12	3.7	1.0	1.4
- 15	24.2	25.2	33.3
- Other	4.7	5.9	1.4
- Don't Know	18.4	8.4	5.3
- Not Applicable	3.9	2.4	3.4
Presently, do you have any points? YES	2.9	47.0	84.5
How many?			
- 1 to 5	1.9	34.2	15.9
- 6 to 8	.2	6.4	39.5
- over 9	.6	4.0	25.2
Actual Average	0.0	2.8	7.4

violations.)

All of the specific knowledge items indicated a significant ($p < .001$) increase in the percentage of correct responses across groups (Table 14). These data indicate that drivers' knowledge increases with the number of points they accumulate. Although this increased knowledge with increased point accumulation across groups was consistent for all knowledge items, the level of knowledge varied considerably across items. Regarding violations, drivers were most knowledgeable about going through a stop sign (A=31.1%; B=51.0%; C=64.3%) and least knowledgeable about speeding 30 to 50 kilometers over the limit (A=5.8%; B=14.4%; C=17.9%).

For the more severe violation (speeding), drivers with more points were more likely to underestimate the actual number of points received. They seemed to downplay the severity of the violation.

Only a small percentage of each group correctly identified the number of points obtained for faulty brakes (i.e. zero) (A=15.7%; B=18.9%; C=24.2%). The majority of drivers did not seem aware that demerit points could be received only for moving violations.

The percentage of drivers who reported receiving a particular special deterrent (e.g. warning letter, interview or suspension) significantly increases ($p < .001$) across groups, as would be expected (Table 15). When asked about the point/special deterrent relationship, two general trends emerge:

1. the more severe the deterrent, the more knowledgeable are all drivers; and,
2. the higher the number of points drivers have, the more knowledgeable they are about each of the special deterrents (Table 16).

When one considers the interaction between the drivers' reports of receiving special deterrents and their knowledge of the points/special deterrent relationship, some interesting findings emerge. These are presented in Figure 1. Figure 1.a demonstrates that the

TABLE 14

ACROSS GROUP COMPARISON ON KNOWLEDGE OF DEMERIT POINT SYSTEM

KNOWLEDGE QUESTION	PERCENT CORRECT GROUP A	GROUP B	GROUP C
Points, when licence obtained	45.3	57.4	55.1
Points for going through a stop sign	31.1	51.0	64.3
Points - Automatic Suspension	36.5	44.6	57.5
Points for Interview	20.1	34.2	59.9
Points before receiving warning letter	14.9	17.3	28.5
Points for faulty brakes	15.7	13.9	24.2
Speeding 30 to 50 k.p.h over the limit	5.8	14.4	17.9

Note: Each knowledge question was analyzed for across group differences by an Analysis of Variance.

TABLE 15

PERCENTAGE OF DRIVERS IN EACH GROUP WHO REPORTED THEY RECEIVED SPECIAL DETERRENTS

DETERRENT	GROUP A	GROUP B	GROUP C
Warning Letter	6.6%	21.3%	76.3%
Interview	2.4	7.4	40.6
Suspension (due to points)	.5	1.0	6.8

Note: Each deterrent comparison was significant across groups at $p < .001$

TABLE 16

PERCENTAGE OF DRIVERS IN EACH GROUP WHO KNEW THE CORRECT POINT/DETERRENT RELATIONSHIP

DETERRENT	GROUP A	GROUP B	GROUP C
Warning Letter	14.9%	17.3%	28.5%
Interview	20.1	34.2	59.9
Suspension (due to points)	36.5	44.6	57.5

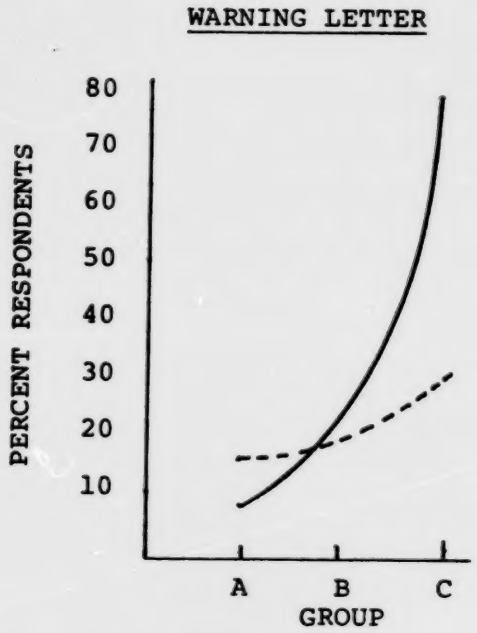

Figure 1.a

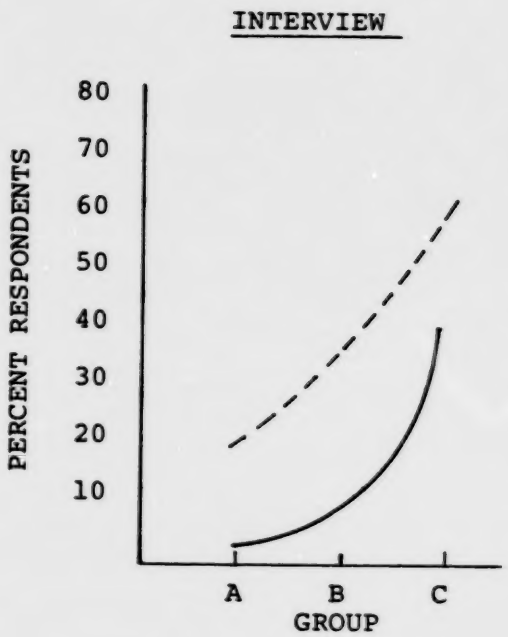

Figure 1.b

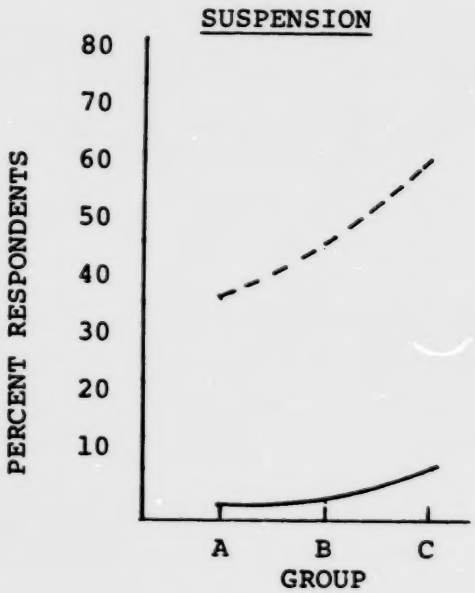

Figure 1.c

---------- Knowledge of Point-Deterrent Relationship

_____ Reported Receiving Deterrent

Figure 1. Knowledge of Point-Deterrent Relationship and Percent of Drivers Reporting They Received Deterrent, Across Groups

greater the number of points received (across groups), the more often was a warning letter received. However, reported receipt of this warning letter does not carry much information about the point/warning letter relationship. Figures 1.b and 1.c indicate that although the interviews and suspensions are less frequently reported by all groups, drivers are increasingly more knowledgeable about the point/interview/suspension relationships across groups. It should be noted that the warning letter explicitly and clearly provides information about the point/deterrent relationship for interviews and suspensions, but not for the number of points associated with itself. This relationship could easily be made clearer and more explicit in the warning letter.

Predicting Group Membership from Drivers' Knowledge

In order to determine whether group membership could be predicted by drivers' knowledge of the Demerit Point System, a stepwise, multiple regression (MREG) was performed. Each of the knowledge items (Questions 16 to 22) was combined into an Overall Knowledge Scale and each item was also added individually into the analyses to determine its unique contribution to predicting group membership.

As indicated in Table 17, 14 percent (R Square) of the variance in group membership is predictable from the Overall Knowledge Scale ($p < .001$). The individual items do not have a strong relationship to group membership.

3.4/ Attitudinal Characteristics Across Groups

The attitudes of Ontario's driving public were examined in the following five areas:

1. The purpose(s) of the Demerit Point System (as a general or special deterrent, or both).
2. The reasons why the system does or does not personally influence driving behaviour.

TABLE 17

MULTIPLE REGRESSION OF KNOWLEDGE OF DEMERIT POINT SYSTEM ON GROUP MEMBERSHIP

QUESTION	SIMPLE R*	MULTIPLE R	R SQUARE
Overall Knowledge Scale	.38	.38	.141
Points for Faulty Brakes	-.11	.381	.145
Points for Speeding 30 to 50 k.p.h.	-.04	.389	.152
Points before receiving a warning letter	-.08	.394	.155
Points required for interview	-.06	.394	.155
Points for automatic suspension	.07	.394	.155
Points licence first obtained	-.03	.394	.156
Points for going through a stop sign	F level insufficient for computation		

* R refers to correlation or co-variability;
Multiple R refers to the cumulative correlation; and,
R Square refers to the cumulative, total amount of variability accounted for.

3. Opinions related to interacting with the police around traffic laws and regulations.
4. Improvements in the system.
5. Perceived dangerousness of various driving situations.

Purpose of the Demerit Point System

From the focus groups held prior to the survey, there were various opinions concerning the importance of the system. Group A participants felt the system was directed toward the repeat offender and not themselves (special deterrent). Several individuals in Group B did mention that points were important over and above fines because of insurance and job implications (partly a general deterrent). From Group C it was clear that the general deterrent effect of the system was non-existent and that their main concern was to retain their licence.

In the telephone survey, drivers were asked what they thought the aims of the system were: to improve the performance of drivers with many traffic violations (special deterrent - Question 10) or to make everyone a safe driver (general deterrent - Question 11). The results of the across group comparisons did not reveal any significant differences. In fact, a high percentage of drivers in all three groups agreed that both were aims of the system (Question 10: A=78.5%; B=75.7%; C=79.2%; Question 11: A=79.7%; B=79.2%; C=75.8%).

Influence of the System on Driving Behaviour

Drivers were asked if their driving behaviour was influenced in any way by knowing that they would get demerit points. The main reasons for the system influencing or not influencing driving behaviour were also obtained. The results are given in Table 18.

TABLE 18

INFLUENCE OF THE DEMERIT POINT SYSTEM *
ON DRIVING BEHAVIOUR ACROSS GROUPS

	PERCENT		
	GROUP A	GROUP B	GROUP C
Demerit points influence driving behaviour - YES	55.8	70.3	75.4
YES - WHY?			
Financial (fines and insurance)	3.2	6.4	6.3
Affect Job	3.2	6.9	9.2
Reminder to drive safely	13.0	15.3	8.7
License Suspension	29.6	34.7	45.9
Other	4.1	5.0	2.4
NO - WHY?			
Drive safely anyway	28.6	19.8	6.8
Just don't think about it	4.6	1.0	8.7
Do not have enough points	1.5	3.0	2.4
Other	2.9	.5	1.4

*don't know, refused, and non-applicable have not been included in table.

The special deterrent effect of the system was evident by the increasing percentage of drivers across groups who indicated the system influenced their driving (A=55.8%; B=70.3%; C=75.4%) ($p < .001$). More individuals in Group C feared the loss of their licence (A=29.6%; B=34.7%; C=45.9%), while the system acted as less of a reminder to drive safely in Group C than in either Groups A or B (A=13.0%; B=15.3%; C=8.7%).

For the minority of drivers in each group who indicated the system did not affect their driving, there was a significant difference between groups ($p < .001$). There is a significant decreasing percentage of individuals across groups who said it was because they drive safely anyways (A=28.6%; B=19.8%; C=6.8%).

Interaction with Police and Driving Regulations

In the focus groups, Group C participants were charactertized as "Road Game Players". They actually appeared to enjoy the challenge of winning the game of driving as they pleased, by knowing when and where, and in what circumstances, the police would be present. Several individuals in focus group B thought that their violations were more negligent than intentional. Some Group B participants also thought that traffic laws were confusing. Several focus group A participants also thought that their past violations were due to negligence and that police enforcement should be increased.

The telephone survey supports the above interpretations of the focus group discussions. Table 19 presents the percentage of drivers in each group who agreed with opinion statements related to the issues of police enforcement of traffic regulations and the clarity of traffic laws. The two opinion statements demonstrating significant differences ($p < .001$) across groups were related to police enforcement. Group C respondents disagreed that police enforcement of traffic regulations should be increased and that the police are fair and reasonable when enforcing traffic regulations. Although Group B disagreed 6 percent more often with these statements than Group A, these trends were not significant.

TABLE 19

ACROSS GROUP COMPARISONS ON OPINION STATEMENTS

OPINION STATEMENTS	PERCENT IN AGREEMENT		
	GROUP A	GROUP B	GROUP C
Police enforcement of traffic regulations should be increased	61.1	55.0	43.0
There should be more publicity about the Demerit Point System	76.6	78.2	72.5
Drivers should be notified each time they receive points for a traffic violation	84.1	83.7	84.1
The police are fair and reasonable when enforcing driving regulations	78.3	72.3	71.4
Traffic laws are confusing	28.4	30.2	21.7

Respondents were asked whether they felt that traffic laws were confusing. A slight trend emerged to indicate that Groups A and B agreed that this was the case more so than Group C. However, this trend was not significant (A=28.4%; B=30.2%; C=21.7%). The majority of drivers felt that they should be notified for each point violation (A=84.1%; B=83.7%; C=84.1%) and that there should be more publicity about the Demerit Point System (A=76.6%; B=78.2%; C=72.5%).

Improvements in the Demerit Point System

The survey included three questions related to drivers' perceptions of what would be useful in getting drivers to drive more safely. Table 20 gives the percentage of group responses to each question. All three questions resulted in significant differences across groups (Question 34, $p < .008$; Question 35, $p < .001$; Question 36, $p < .001$).

In all cases, Group A drivers were most likely to endorse the action suggested, and Group C drivers were least likely to endorse such a change. The most frequently endorsed change was a lowering of the number of points at which a driver would be called for an interview.

Perceived Dangerousness of Driving Situations

The rational for the inclusion of questionnaire items related to the perceived dangerousness of various driving situations is to be found in the focus group discussions. Focus Group A participants indicated general discomfort with driving. No one in Focus Group A voluntarily commented that they were safe drivers. Getting behind the wheel of a car was a chore that had to be coped with as a necessity of life. In contrast, Focus Group C participants enjoyed driving. "Speeding is second nature in my driving" was a comment that most of this group's participants laughingly nodded to. They were drivers who had a high tolerance for risk.

TABLE 20

ACROSS GROUP COMPARISONS OF
SUPPORT TO INDUCE SAFER DRIVING

	PERCENT		
	GROUP A	GROUP B	GROUP C
Q.#34			
Increasing the number of points given for each violation	Yes 39.1	Yes 31.7	Yes 27.5
Q.#35			
Calling in drivers for an interview earlier	67.5	65.3	54.6
Q.#36			
Changing the number of points for earlier suspension of licence	56.9	51.0	34.8

Several Group C participants made mention of the fact that if they were upset or angry, they would release tension by getting in their car and going for a drive. Group B drivers were somewhat more neutral, with most of the participants mentioning that they did not mind driving. No outstanding characteristics were prevalent in this group, other than that they did appear to have a somewhat higher risk tolerance level than Group A.

Table 21 gives an overview of across group responses to the perceived dangerousness of five hypothetical driving situations. Also included was a question asking the respondents to indicate whether they had ever committed a traffic violation without being caught.

Examining the individual driving situations revealed no significant differences across groups, although there is a trend for the perceived dangerousness to decrease as points increase across groups. The data indicate that the driving situation perceived to be the least dangerous by all groups, is speeding 24 kilometers above the limit, on a highway with little traffic on a clear day. The driving situation perceived to be the most dangerous is not coming to a full stop at a stop sign, in a residential area on a rainy night. The three remaining driving situations all indicated a slight trend across groups (from A to C) to be perceived as generally safe.

Due to the trends in the above data, an additive index of perceived dangerousness (Danger Scale) was created by counting the responses to all five situations. Out of a possible score of 15, three categories of dangerousness were created:

- Low (up to 5)
- Medium (6 to 10)
- High (11 to 15)

To increase the variability across the three groups, a points-on-record scale was also created using six categories:

TABLE 21

ACROSS GROUP COMPARISONS OF THE

PERCEIVED DANGEROUSNESS OF VARIOUS DRIVING SITUATIONS *

DRIVING SITUATION	PERCENT GROUP A G.S.*	GROUP A S.D.*	GROUP A V.D.*	GROUP B G.S.*	GROUP B S.D.*	GROUP B V.D.*	GROUP C G.S.*	GROUP C S.D.*	GROUP C V.D.*
a) not coming to a full stop in a residential area on a rainy night	3.7	38.2	56.3	3.0	43.6	53.0	6.8	34.3	58.0
b) not coming to a full stop in a residential area on a clear, sunny day	15.6	56.3	26.6	16.8	58.4	23.8	17.9	54.1	26.6
c) driving 24 k.p.h. above the limit on a highway with little traffic on a clear day	47.2	42.6	9.0	55.4	38.1	5.4	60.9	30.9	6.8
d) driving within an hour of having two drinks of alcohol on an unfamiliar road on a clear day	12.0	45.2	38.6	23.3	37.6	35.1	24.6	39.1	34.3
e) driving while very angry or upset	2.5	40.3	54.8	4.0	52.0	42.1	7.7	47.8	41.5

* G.S. - Generally Safe

* S.D. - Somewhat Dangerous

* V.D. - Very Dangerous

*don't know, refused, and non-applicable responses have not been included in table.

- zero points
- 1 to 3 points
- 4 to 5 points
- 6 to 8 points
- 9 to 12 points
- 13 or more points

The individual scores on the two scales were then analyzed with an Analysis of Variance (ANOVA) to determine if the Danger Scale is related to points-on-record. The results indicated that the drivers who had more points were generally less likely to perceive these situations as dangerous ($F=4.9$; df. 2; $p < .007$). These drivers seem to have a higher "danger" threshold for all the hypothetical situations presented.

Another way of examining risk-tolerance levels across groups is to see how severe the individual drivers are in awarding points to violations, regardless of what the current system calls for. Three violations were included in the survey and drivers were asked how many points they thought should be charged against a driver (between zero and 15) for each one. The distribution of points assigned to each violation for each group is indicated in Tables 22, 23 and 24.

For ease of interpretation, the number of points assigned by the drivers to each violation were also included in an additive Severity Scale. This scale was then examined in relation to the previous points-on-record scale. Using an ANOVA, the results indicated a strong relationship between the severity of points assigned to the violation and points-on-record ($F=21.8$; df.2,100; $p < .0001$). Drivers with more points-on-record produced lower severity scores than drivers with fewer points, suggesting higher tolerance for risky situations.

It is interesting to note that a high percentage of drivers in each group (A=65%; B=75%; C=77%) indicated that they had committed a traffic violation without being caught. There were no significant differences between groups, although there is a trend for more Group C drivers to report having committed violations without

TABLE 22

CHOSEN POINTS ASSIGNED
BY GROUP TO THE VIOLATION OF
FAILING TO STOP FOR A SCHOOL BUS

POINTS ASSIGNED	GROUP A (N) 595	B 202	C 207	PERCENT
0	3	3	0	.6
1	9	3	0	1.2
2	33	19	8	6.0
3	93	40	52	18.4
4	49	18	33	10.0
5	128	42	28	19.7
6	64	30	45	13.8
7	29	2	3	3.4
8	13	6	4	2.3
9	18	5	6	2.9
10	52	10	4	6.6
11	1	0	0	.1
12	8	1	4	1.3
13	1	0	0	.1
15	49	15	12	7.6
Refused	6	1	1	.8
Don't know	18	3	0	2.1
Not Applicable	21	4	7	3.2

TABLE 23

CHOSEN POINTS ASSIGNED
BY GROUP TO THE VIOLATION OF
FAILING TO SIGNAL A TURN

POINTS ASSIGNED	GROUP A (N) 595	B 202	C 207	PERCENT
0	45	19	38	10.2
1	113	45	36	19.3
2	158	60	74	29.1
3	125	47	41	21.2
4	13	3	6	2.2
5	50	8	4	6.2
6	18	0	0	1.8
7	4	0	0	.4
8	7	2	0	.9
9	3	0	0	.3
10	12	4	0	1.6
11	0	0	0	-
12	0	1	0	.1
13	0	0	0	0
15	7	2	0	.9
Refused	6	1	0	.7
Don't know	13	6	1	2.0
Not Applicable	21	4	7	3.2

TABLE 24

CHOSEN POINTS ASSIGNED
BY GROUP TO THE VIOLATION OF
EXCEEDING SPEED LIMIT BY 30 TO 50 K.P.H.

POINTS ASSIGNED	GROUP A (N) 595	B 202	C 207	PERCENT
0	8	6	5	1.9
1	8	4	4	1.6
2	58	25	41	12.4
3	157	64	88	30.8
4	58	39	26	12.3
5	108	24	11	14.2
6	49	15	17	8.1
7	12	1	0	1.3
8	18	1	1	2.0
9	10	3	1	1.1
10	43	9	0	5.2
11	2	0	0	.2
12	4	0	1	.5
13	2	0	0	.1
15	13	1	0	1.4
Refused	6	1	1	.8
Don't know	18	5	4	2.7
Not Applicable	21	4	7	3.2

being caught.

Predicting Group Membership by Attitudes

As was done with the individual knowledge items, all of the attitudinal variables were included in a stepwise multiple regression. The purpose of the procedure in this case was to examine the predictability of group membership by attitudes. Table 25 provides the relevant data, indicating that three variables contribute significantly to group predictability; they are:

- Question 32 - the police are fair and reasonable when enforcing driving regulations
- Question 35 - changing the number of points for an earlier suspension
- Questions 37, 38 & 39 - Severity Index

Overall, 10 percent of group membership is accounted for with these variables. All three items are related to the discussion held in Focus Group C concerning the tightening up of the system on the repeat offender.

3.5/ Predicting Group Membership with Demographic, Knowledge and Attitudinal Variables

Separate regressions on group membership were performed using demographic, knowledge and attitudinal variables. The results indicated that approximately 14 percent and 10 percent respectively of group membership could be accounted for by knowledge and attitudes, taken individually. The group variability accounted for by demographic variables was inflated because of the confound of sex. However, the demographic regression did indicate the predictive importance of age and marital status.

TABLE 25

MULTIPLE REGRESSION USING ATTITUDINAL VARIABLES TO PREDICT GROUP MEMBERSHIP

ATTITUDE STATEMENT	SIMPLE R	MULTIPLE R	R SQUARE
Police - fair and reasonable	.22	.223	.049
Severity Index	-.19	.290	.083
Points - sooner suspension	.19	.315	.099
Interview earlier	-.15	.323	.104
Traffic laws confusing	.06	.329	.109
Police enforcement increased	.14	.333	.111
Danger Index	-.09	.335	.112
Demerit Point System - purpose to make everyone a safe driver	.05	.336	.113
Notification - each point violation	.03	.336	.113
Demerit Point System - more publicity	.06	.336	.113
Demerit Point System - was to improve drivers with many violations	.02	.336	.113

Table 26 gives an overview of the combined predictability of group membership using the most significant demographic, knowledge and attitudinal predictors in a grand multiple regression. Overall, the results indicated that knowledge and attitude variables are the best predictors of group membership (7 percent and 10 percent, respectively). Age and marital status together add only an additional 1 percent to group predictabiltiy. The most significant attitudinal predictor of group membership is the Severity Index, based on the drivers' preferred assignment of points to various violations. This accounts for an additional 5 percent of the variance in group membership. An additional 3 percent of group variability was accounted for by responses to the statement, "The police are fair and reasonable when enforcing driving regulations", while 2 percent of the variability was accounted for by calling for an earlier point/suspension level.

Relationship Between Knowledge and Attitudes

The research issue of interest here is whether particular subsets or items of knowledge are related consistently across groups to subsets of attitudes. A canonical correlation procedure was used to examine these potential relationships. This statistical procedure is one of a family of multivariate techniques used to explore two or more sets of variables for consistent relationships.

The analysis indicates that no canonical variates exist at the .05 level of significance. The Overall Knowledge Scale is positively correlated with:

a) disagreeing that police enforcement of the traffic regulations should be increased;
b) disagreeing that police are fair and reasonable when enforcing driving regulations; and,
c) that increasing the number of points given for each violation should not make safer drivers.

But these relationships are small and have been discussed previously.

TABLE 26

PREDICTING GROUP MEMBERSHIP WITH
DEMOGRAPHIC, KNOWLEDGE AND ATTITUDINAL VARIABLES

PREDICTOR VARIABLE	SIMPLE R	MULTIPLE R	R SQUARE
Overall Knowledge Scale	.26	.26	.07
Severity Index	-.20	.34	.12
Police - fair and reasonable	.22	.39	.15
Points - suspension sooner	.19	.41	.17
Age	.22	.43	.18
Marital Status	.15	.43	.18

4/ DISCUSSION

The purpose of this study was to obtain baseline data on the knowledge and attitudes of Ontario drivers with respect to the Demerit Point System. Since its initiation in 1959, there have been very few studies of this system and its impact on Ontario drivers. Consequently, the present study was exploratory and broad in scope. It explored a variety of driver characteristics, driver knowledge and driver attitudes, as they relate to the number of demerit points accumulated.

An anticipated consequence of the study was that it would shed some light on the effectiveness of the Demerit Point System as a deterrent to dangerous driving. Of special interest is whether the Demerit Point System acts as a general or a special deterrent. A general deterrent effect would be evident if drivers were generally knowledgeable about the system, and indicated that the fact of its existence influenced them to drive safely. A special deterrent effect would be evident if those drivers who received a special deterrent (an interview and/or a warning letter, as did Group C), were more knowledgeable than those who did not.

A further objective of the study was to explore the attitudes of drivers in relation to the number of demerit points they accumulated.

Evidence from the survey indicates that Ontario drivers are aware of the Demerit Point System and are somewhat knowledgeable about many of the system's characteristics (Table 14). A considerable percentage of the drivers in Groups A and B indicated that their driving is influenced by the Demerit Point System, even though the majority of them have never experienced a special deterrent (Tables 16 and 18). These results support the notion that there is some general deterrent effect of the Demerit Point System.

Although many drivers in each category knew something about various aspects of the Demerit Point System, a large percentage of drivers did not know the correct answers to the knowledge items. There is some considerable confusion about a basic aspect of the system -- whether it starts at zero or 15 points. Another interesting finding is that very few drivers in Group C knew the correct number of points associated with the receipt of a warning letter (Figure 1.a). They were knowledgeable about the number of points associated with the other deterrents (interview and suspension (Figures 1.b and 1.c). Information about these latter deterrents are included in the warning letter, but the letter does not clearly indicate the number of points associated with the letter itself.

In addition to the evidence for a general deterrent effect, the impact of the special deterrents appears to be even greater. Drivers in Group C, who have had the most exposure to special deterrents (Table 15):

a) are the most knowledgeable about the Demerit Point System in general (Tables 14 and 16);
b) are more knowledgeable than Group B drivers about their own personal point total (Group A drivers are most knowledgeable, but they must only remember that they have no points -- an easier task); and,
c) are more likely to indicate that the Demerit Point System influences their driving behaviour, their main concern being a fear of having their licence suspended (Table 18).

The above evidence then, indicates that there is both a general and a special deterrent effect of the Demerit Point System. However, when considering the general deterrent data, it must be kept in mind that there exists general deterrents which are external to the Demerit Point System. From the focus groups, for example, there is evidence from Group A participants that personal and social values are of considerable importance for some drivers.

This is also reflected in Table 18, where a certain portion of the drivers in Group A indicated the Demerit Point System did not influence them, who said that they "drive safely anyway".

Future studies of the deterrent effects of the Demerit Point System may wish to explore these additional deterrents.

It is interesting to note the positive association between knowledge about the Demerit Point System and the number of point-violations accrued. Clearly, more knowledge about the system is not associated with safer driving. To appreciate this somewhat counter-intuitive finding, it must be kept in mind that Group C drivers were most likely to seek out specific information about the Demerit Point System after they had experienced some police enforcement of the driving regulations. This police contact motivated them to learn more about the system. The evidence from the focus groups and the survey indicates that this seeking of knowledge is not motivated by a desire to learn safer driving habits. The information seeking is motivated by self-protection. They wish to be fully aware of the rules of the game so that they can win the "game" of driving as they please without being caught.

Whereas drivers in Group A (and to some extent in Group B) agreed with various suggestions for altering the Demerit Point System to increase driver safety, drivers in Group C were less interested in these options (Tables 19 and 20). However, Group C drivers were as interested as the other drivers in receiving more information about the Demerit Point System (Table 19). The data from the Danger and Severity Scales indicate that drivers in Group C have a higher tolerance for dangerous driving situations, and are less likely to feel that serious driving violations should receive a high number of demerit points.

The total amount of variance in group membership (Groups A, B and C) accounted for by the demographic, knowledge and attitudinal variables is modest (Table 23). However, these data indicate that

the areas most likely to contribute to an understanding of the dangerous driver are attitudinal and personality characteristics. Demographic variables contribute very little to the variance in group membership. In addition, not much can be done to affect a driver's demographic characteristics. And while the Knowledge Scale was the best single predictor of group membership, the fact that it is positively related to demerit point total does not necessarily negate the notion that knowledge about the system could be advantageously manipulated to improve driver safety.

However, a focus on attitudinal and personality characteristics of dangerous drivers could lead to a better understanding of why these drivers behave as they do on the road. This information could be used in a media campaign aimed specifically at the attitudes of dangerous drivers, or the information could be used to design special deterrents that would have a greater impact on their dangerous driving behaviour.

A study concerned with attitudinal variables might attempt to clearly delineate between predispositional attitudes and attitudes that may be the results of coming in contact with the Demerit Point System, police enforcement or legal sanctions.

Additional considerations for future study are:

1. the need to develop categories of drivers with particular deterrent experiences (e.g. warning letter only; letter plus interview; suspension);
2. large enough samples to insure opportunities for further data breakdowns (e.g. two or three-way tables); and,
3. the relationship of past driving experiences with the special deterrent effects in future driving behaviour (e.g. of those who receive a warning letter, what are the characteristics of those who do not accumulate more points over a specified time period, vs. those who do get more points? What are the characteristics of recidivists?)

A final comment regarding the study is that the results of the focus groups and those of the survey are mutually reinforcing. Because these methods of data gathering are so different from each other, the similar findings from these two approaches increase the confidence one may place in the results.

APPENDIX 'A'

FOCUS GROUP SUMMARY

The report on the focus groups was submitted to the Ministry in January, 1981 and will not be dealt with extensively here. However, an overview of the findings is presented below.

Based on the issues and questions outlined in the agenda, the findings of the focus groups can be summarized as follows:

Knowledge of System

1. Group A was least knowledgeable of the particulars and operations of the system. Most individuals in this group felt that they were guessing as to violation/point relationships, or at what level special deterrents were enacted. Group C, on the other hand, was by far the most knowledgeable of system particulars. In general, knowledge of the Demerit Point System increased as an individual's point total accumulated.

2. As the number of points increased among focus group members, the manner by which an individual came to learn about the particulars of the system changed from indirect means to personal initiative. Group A members learned of the system from friends and relatives, Group B through insurance companies, police officers, etc. and Group C by personally finding out: "I asked the officer", "I went to the Ministry of Transportation".

Attitudes Toward System

3. Group A Members:
   - felt that officer discretion in charging an individual with a violation was undesirable. They had a high degree of social consciousness and a violation was viewed as a social blemish. They considered themselves to be good, socially conscious citizens. However, no one in the group mentioned that they were good drivers.

- no situations were worth taking risks for,concerning illegal driving behaviours
- driving was an uncomfortable situation, a potentially dangerous chore
- violations were a result of negligence and not conscious, deliberate violations
- the point system is redundant with the fines
- the worst violation is impaired driving

Group B Members:

- were the most heterogenous group concerning their attitudes towards the system
- supported the importance of the point system over and above the fines
- were content with how the system worked, but thought it should be harsher on the more serious offences
- felt that violations were based on lack of awareness, as well as minimal, deliberate risk taking
- expressed a greater degree of risk-taking, but an open acceptance of the consequences
- felt that the worst offence was impaired driving

Group C Members:

- felt that officer discretion was positive, because it provides the possibility of decreasing the severity of the charge
- hold attitudes characterized by qualifications of the law; for example, it is okay to speed under good weather conditions, when there was no traffic around, etc.
- expressed a much higher level of risk-taking than Groups A and B. Could be viewed as "The Road Games Players", who felt they could beat the system because personal judgement should prevail over authority
- felt themselves to be good drivers, in control behind the wheel

- can be characterized as:
  - . being road-wise (know when and where police might be)
  - . having a high risk tolerance level (almost any driving behaviour could be justified by circumstances)
  - . having a high degree of personal, ego involvement in winning the road game (i.e. driving as they please and getting away with it)
- considered the purpose of the Demerit Point System to be an aid in regulating their own behaviour, while simultaneously allowing them to continue displaying behaviour that entails high risk-taking.

In general, Group A members were most homogeneous with respect to their knowledge, and attitudes and Group C members the most heretogeneous.

FOCUS GROUP AGENDA

1. What do you know about the Demerit Point System?
   - its objectives (deterrent for all, or to identify problem drivers)
   - how it works - in principle
     - details (e.g. # of points to letter; to suspension; time until points are removed)

2. When/where did you hear about the Demerit Point System?

3. Have you ever had points? (show of hands)
   Do you have any now?
   Do you know how many you have?

4. What do you think about the system?
   - Does it do any good (or bad)? (In general)
   - Does it effect violations and/or accidents?
   - Does it have any impact on you personally, and how you drive?
   - Would you drive differently without it?

5. Do the fines - or points - or letter have any impact?
   - Should letter come earlier?
   - What is greatest deterrent in system (money, points, inconvenience)? or fear of losing licence?

6. If you have ever had points (or were to get some) how would you feel?
   - Would you tell others about it?
   - Would you find it difficult to talk to a stranger on the phone about it?

7. Are there circumstances when you would like to "forget about the rules" and drive as you wished? What are those circumstances?
Are there circumstances when you would like to "take a chance", but don't? What are they? Why don't you take that chance?

8. Do you feel there are any difficulties with the present Demerit Point System?
   - What are they?
   - Are they due to the - laws?
     - enforcement?
     - sanctions?

<u>For Drivers with Points (Groups B & C)</u>

9. How did you feel when you got points?
How did you feel when you got the letter?
When you received the letter, had you remembered the offence?
Do you remember your reaction to the letter? The letter's tone?

10. Had you committed similar offences before, without being caught?
What was different about the time you got the points?
How did the fine affect your driving?
How did the points affect your driving?
Which had greater effect?

11. Each focus group participant was asked to respond anonymously to a number of specific driving offences, in terms of the number of points they felt the violation warranted, and whether they had ever committed these violations without being caught. The offences are listed in the appended 'Driver Offence Form'.

'DRIVER OFFENCE FORM'

PLEASE DO NOT WRITE YOUR NAME

(RESPONSES ARE TO BE COMPLETELY ANONYMOUS)

- Listed below are a number of driving offences.
- In the second column, please indicate how serious you feel the offence is by indicating how many points you feel the violation should warrant.
- In the third column, please indicate with a check (√) whether you have ever committed this offence without being caught.

OFFENCE	# OF POINTS THAT SHOULD BE GIVEN	COMMITTED WITHOUT BEING CAUGHT
Failing to obey stop sign, signal light or railway crossing signal.	___	___
Wrong way on one-way street or highway.	___	___
Careless driving.	___	___
Crowding driver's seat.	___	___
Towing of persons on toboggans, bicycles, skis, etc. prohibited.	___	___
Driver of bus to stop at railway crossing.	___	___
Unnecessary slow driving.	___	___
Failing to obey directions of police.	___	___
Improper opening of vehicle door.	___	___
Driving while licence was under suspension.	___	___
Failing to lower head-light beam.	___	___
Racing.	___	___
Improper passing.	___	___
Pedestrian crossover.	___	___

. . . continued

OFFENCE	# OF POINTS THAT SHOULD BE GIVEN	COMMITTED WITHOUT BEING CAUGHT
Failing to signal.	—	—
Following too closely.	—	—
Speeding:		
1-10 m.p.h. over limit	—	—
11-19 m.p.h. over limit	—	—
20-29 m.p.h. over limit	—	—
30 m.p.h. over limit	—	—
Failing to yield right-of-way.	—	—
Failing to report an accident.	—	—
Prohibited turns.	—	—
Improper left turn.	—	—
Driving through, around or under railway crossing barrier.	—	—
Failing to stop for school bus.	—	—
Failing to remain at the scene of an accident.	—	—
Improper right turn.	—	—
Failing to obey signs prescribed by regulation under section 125 (1)	—	—
Failing to share road.	—	—

APPENDIX 'B'

DEMERIT POINT SYSTEM SURVEY

MINISTRY OF TRANSPORTATION AND COMMUNICATIONS

THE APPLIED RESEARCH CONSULTING HOUSE LTD.

FEBRUARY 1981

INTERVIEWER: Read out regular type only. Do not read out italics. _____ *TIME BEGIN*

Hello, may I speak with Mr/Mrs/Ms _____. My name is _____. I believe you recently received a letter about the study we are conducting for the Ontario Ministry of Transportation and Communications. We would like to ask you some questions about people's driving patterns and their knowledge about Ontario's driving laws. The questionnaire will be short and will only take a few minutes of your time. Of course, your answers will be anonymous and confidential. If we come to a question you do not want to answer, just let me know and we will skip over it.

Respondent. I.D. ☐ (1) ☐☐☐☐ (2 3 4 5) ☐☐ (6 7)

Ask first question immediately.

CODERS ONLY

1. First, do you still have a valid Ontario driver's licence?

( ) 1. *Yes - Go to Question 3*
( ) 2. *No - Go to Question 2*
( ) 7. *Refused*) *Go to Question 3*
( ) 8. *Don't know*)

☐ (8)

2. Can you tell me why you no longer have a licence?

( ) 0. *medical suspension*
( ) 1. *criminal code suspension/impaired driving*
( ) 2. *point violations*
( ) 3. *fines not paid*
( ) 4. *didn't bother to renew*
( ) 5. *discretionary suspension by judge*
( ) 6. *other (specify)* _____
( ) 7. *refused*
( ) 8. *don't know*
( ) 9. *not applicable*

☐ (9)

3. Can you tell me approximately how many years you have held a driver's licence?

_____ *years*

Probe: If you had to guess how many would you say?

Get <u>total</u> number of years but do not count breaks.

10 11

4. Think of how many kilometers or miles you have driven over the past three (3) years. What is the average number of kilometers or miles you have driven <u>per year</u>?

Get Best Guess

_____ *(miles)* *OR* _____ *(kilometers)*

Zero miles <u>may</u> be appropriate, but probe.

12 13 14

5. What is the <u>main</u> reason in terms of mileage that you use a motor vehicle? *(Probe for <u>main</u> reason.)*

CHECK ONLY ONE.

( ) 1.* *commuting to and from work/school*
( ) 2. *shopping/household errands*
( ) 3. *vacation/recreational trips/social/visiting*
( ) 4.* *as part of my job*
( ) 5. *other (specify)* _____
( ) 7. *refused*
( ) 8. *don't know*
( ) 9. *not applicable*

"need for work"
** if need to commute=code 1*
** if paid to drive=code 4*

Main reason = in terms of miles.

15

6. When you <u>first</u> got your driver's licence, did you take a formal course for example, either in high school or from a commercial driver training school?

( ) 1. *Yes, high school.*
( ) 2. *Yes, commercial driver training.*
( ) 3. *Yes, other formal course (e.g. army, police)*
( ) 4. *No*
( ) 7. *Refused*
( ) 8. *don't know*
( ) 9. *not applicable*

16

7. **Have you ever heard of the Demerit Point System for drivers in Ontario?**

( ) 1. *Yes - Go to Question 9*

( ) 2. *No* → 8. **If a driver is convicted of a traffic offence, the driver receives demerit points against his or her licence. These points are accumulated and are recorded on the driver's record. Have you heard anything about this system before?**

( ) 7. *Refused* ↑

( ) 8. *Don't know* ↑

( ) 1. *Yes-Go to Q.9*
( ) 2. *No -Go to Q.40*
( ) 7. *Refused*)
)*Go to Q.40*
( ) 8. *Don't know)*
( ) 9. *not applicable*

17 ☐

18 ☐

9. **Where did you <u>first</u> learn about the Demerit Point System?**

CHECK ONLY <u>ONE</u> ANSWER

( ) 0. *Ministry of Transportation and Communications Pamphlet <u>OR</u> Driver's Handbook, <u>OR</u> when you first went to apply for a licence.*
( ) 1. *Friends/Family*
( ) 2. *Insurance Company*
( ) 3. *Police - when pulled over*
( ) 4. *Warning letter from Ministry of Transportation and Communications.*
( ) 5. *Newspaper/Radio/T.V.*
( ) 6. *Elsewhere (specify)* _____
( ) 7. *Refused*
( ) 8. *Don't know*
( ) 9. *Not applicable*

19 ☐

10. **Different people have different ideas about what the Demerit Point System is all about. For each statement that I read, could you tell me if you think it is true or false. We'll try to go through this part quickly. If you are not sure, just say so. Please do not guess.**
<u>DO NOT PROBE</u>

irst.... **One aim of the point system is to improve the performance of drivers with many traffic violations.**

( ) 1. *True*
( ) 2. *False*
( ) 7. *Refused*
( ) 8. *Don't know*
( ) 9. *Not applicable*

20 ☐

11. One purpose of the Demerit Point System is to make everyone a safe driver.

( ) 1. True
( ) 2. False
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

21

12. A driver's licence may be suspended at any demerit point level.

( ) 1. True
( ) 2. False
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

22

13. For you personally, does knowing you will get demerit points for violations have any influence on the way you drive?

( ) 1. Yes → 14. Why? What is the main reason it affects you?

CHECK ONLY ONE MAIN REASON.

( ) 1. financial costs such as fines or insurance rates.
( ) 2. it would affect my job
( ) 3. it serves as a reminder to drive safely
( ) 4. I don't want to lose my licence
( ) 5. some other reason (specify)_____
( ) 7. refused
( ) 8. don't know
( ) 9. not applicable

GO TO QUESTION 16

23

24

( ) 2. No
Go to Q. 15

( ) 7. Refused
( ) 8. D.K.
Go to Q. 16

15. What do you think might be the main reason it does not affect you?

CHECK ONLY ONE MAIN REASON

( ) 1. I drive safely anyway
( ) 2. I just don't think about it
( ) 3. I don't have enough points to worry about it
( ) 4. Some other reason (specify) _____
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

25

16. *Read slowly and carefully.*
To the best of your knowledge, how many demerit points -- between zero to 15 -- are given for each of the following violations. If you think you know, you can guess, but if you have no idea, just say so.

If 2 answers are given, probe for ONE answer.

What about ... going through a stop sign?

_____ *number of points*
( ) 77. *Refused*
( ) 88. *Don't know - No idea*

[ ][ ] 26 27

17. How many demerit points do drivers have before they receive a warning letter from the Ministry of Transportation about their demerit points?

_____ *number of points*
( ) 77. *Refused*
( ) 88. *Don't know - No idea*

[ ][ ] 28 29

18. Exceeding the speed limit by 30 kilometers per hour or more, but less than 50 kilometers per hour, which is the same as going between 18 to 30 miles per hour over the limit.

_____ *number of points*
( ) 77. *Refused*
( ) 88. *Don't know - No idea*

[ ][ ] 30 31

19. How many demerit points do drivers have before they are called for an interview with the Ministry of Transportation official?

_____ *number of points*
( ) 77. *Refused*
( ) 88. *Don't know - No idea*

[ ][ ] 32 33

20. Having faulty brakes?

_____ *number of points*
( ) 77. *Refused*
( ) 88. *Don't know - No idea*

[ ][ ] 34 35

21. To the best of your knowledge, how many demerit points do drivers have before their licence is automatically suspended?

_____ *number of points*
( ) 77. *Refused*
( ) 88. *Don't know - No idea*

[ ][ ] 36 37

22. How many demerit points are on everyone's driving record when they first get their licence?

( ) 1. Zero - *correct*
( ) 2. 12 - *incorrect*
( ) 3. 15 - *incorrect*
( ) 4. *other - incorrect*
( ) 7. *Refused*
( ) 8. *Don't know - No idea*

☐ 38

23. At present, do you have any demerit points on your record for traffic violations?

( ) 1. *Yes* → 24. How many demerit points do you have at this time? _____ *points identified*

Probe: If you had to guess what would you say?

If 2 answers given, get only ONE.

GO TO QUESTION 25

☐ 39

☐☐ 40 41

( ) 2. *No*
( ) 7. *Refused*
( ) 8. *Don't know*

25. Have you <u>ever</u> received a warning letter about your demerit points from the Ministry of Transportation?

( ) 1. *Yes*
( ) 2. *No*
( ) 7. *Refused*
( ) 8. *Don't know*

☐ 42

26. Have you <u>ever</u> been called in for an interview to discuss your driving record and to give reasons why your licence should not be suspended?

( ) 1. *Yes*
( ) 2. *No*
( ) 7. *Refused*
( ) 8. *Don't know*

☐ 43

27. Have you ever had your licence suspended for any reason?

( ) 1. Yes → 28. Have you ever had your licence suspended for getting too many demerit points?

( ) 1. Yes
( ) 2. No
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

( ) 2. No
( ) 7. Refused
( ) 8. Don't know

44 [ ]

45 [ ]

29. Now I will read a set of statements that are all matters of opinion. For each one that I read, could you simply tell me if you agree or disagree.

t... Police enforcement of the traffic regulations should be increased.

( ) 1. Agree
( ) 2. Disagree
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

46 [ ]

30. There should be more publicity about the Demerit Point System.

( ) 1. Agree
( ) 2. Disagree
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

47 [ ]

31. Drivers should be notified each time they receive points for a traffic violation.

( ) 1. Agree
( ) 2. Disagree
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

48 [ ]

32. The police are fair and reasonable when enforcing driving regulations.

( ) 1. Agree
( ) 2. Disagree
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

49 [ ]

33. Traffic laws are confusing.

( ) 1. Agree
( ) 2. Disagree
( ) 7. Refused
( ) 8. Don't know
( ) 9. Not applicable

50 [ ]

34. For each statement that I read now, please tell me if you think it would be useful in getting more drivers to drive more safely. Just answer with a yes or no.

W t about...Increasing the number of points given for each violation.

( ) 1. *Yes* ( ) 7. *Refused*
( ) 2. *No* ( ) 8. *Don't know*

☐ 51

35. Changing the number of points at which a driver's licence is suspended so that a poor driver will lose his or her licence sooner than under the current system.

( ) 1. *Yes* ( ) 7. *Refused*
( ) 2. *No* ( ) 8. *Don't know*

☐ 52

36. Calling in drivers for an interview earlier, than under the current system.

( ) 1. *Yes* ( ) 7. *Refused*
( ) 2. *No* ( ) 8. *Don't know*

☐ 53

37. Now I will describe some traffic violations and for each one tell me how many demerit points -- between zero to 15 -- you think <u>should</u> be charged against the driver -- regardless of how many points the present system actually allows for.

Try and get <u>ONE</u> answer

What about...Failing to stop for a school bus _____ points

☐☐ 54 55

38. Failing to signal a turn. _____ points

☐☐ 56 57

39. Exceeding the speed limit by more than 30 kilometres per hour, but less than 50 kilometres per hour which is between 18 and 30 miles per hour. _____ points

☐☐ 58 59

40. Now I will describe some different driving situations. For each one, tell me if you feel it is <u>generally safe</u>, <u>somewhat dangerous</u>, or <u>very dangerous</u>.

Repeat codes as necessary.

About....Not coming to a full stop at a stop sign in a residential area on a rainy night.

( ) 1. *generally safe* ( ) 7. *Refused*
( ) 2. *somewhat dangerous* ( ) 8. *Don't know*
( ) 3. *very dangerous*

☐ 60

41. Not coming to a full stop at a stop sign in a residential area on a clear sunny day.

( ) 1. *generally safe* ( ) 7. *Refused*
( ) 2. *somewhat dangerous* ( ) 8. *Don't know*
( ) 3. *very dangerous* ( ) 9. *Not applicable*

☐ 61

42. Driving 25 kilometres per hour which is the same as 15 miles per hour <u>above the limit</u> on a highway with little traffic on a clear day.

( ) 1. *generally safe* ( ) 7. *Refused*
( ) 2. *somewhat dangerous* ( ) 8. *Don't know*
( ) 3. *very dangerous* ( ) 9. *Not applicable*

☐ 62

43. Driving within a hour after having two drinks of alcohol on an unfamiliar road on a clear day.

( ) 1. *generally safe* ( ) 7. *Refused*
( ) 2. *somewhat dangerous* ( ) 8. *Don't know*
( ) 3. *very dangerous* ( ) 9. *Not applicable*

☐ 63

44. Driving while very upset or angry.

( ) 1. *generally safe* ( ) 7. *Refused*
( ) 2. *somewhat dangerous* ( ) 8. *Don't know*
( ) 3. *very dangerous* ( ) 9. *Not applicable*

☐ 64

45. In the last six months, do you think you might have committed a traffic violation -- no matter how minor -- and <u>not</u> been caught?

( ) 1. *Yes*
( ) 2. *No*
( ) 7. *Refused*
( ) 8. *Don't know*

☐ 65

46. **These last few questions are just for statistical purposes so that we can classify all the information into different groupings.**

What is your <u>usual</u> occupation? (Either full or part-time)

( ) 01. *administrative or management*
( ) 02. *professional - semi-professional and technical*
( ) 03. *skilled/craftsman*
( ) 04. *foreman*
( ) 05. *semi-skilled*
( ) 06. *clerical*
( ) 07. *sales*
( ) 08. *unskilled*
( ) 09. *truck drivers*
( ) 10. *Taxi drivers*
( ) 11. *bus drivers*
( ) 12. *travelling salesman*
( ) 13. *retired*
( ) 14. *student*
( ) 15. *housewife*
( ) 16. *disabled*
( ) 77. *refused*
( ) 88. *Don't know*

66 67

Record occupation, if code is unclear.

_____

47. **What is your marital status?**

( ) 1. *married or common-law*
( ) 2. *separated*
( ) 3. *single (including divorcees)*
( ) 4. *widowed*
( ) 7. *refused*
( ) 8. *don't know*

68

48. **In what year were you born?** _____ *year of birth*

( ) 77. *refused*
( ) 88. *Don't know*

69 70

49. What is the highest grade of school or college you completed?

( ) 0. *completed grade 8 or less*
( ) 1. *some high school*
( ) 2. *completed high school (12 or 13)*
( ) 3. *some college/university*
( ) 4. *completed college/university*
( ) 5. *some graduate work*
( ) 6. *completed graduate work*
( ) 7. *refused*
( ) 8. *Don't know*
( ) 9. *Not applicable*

☐ 71

50. Which of the following letters best describes your total family income before taxes for 1980. . .

( ) 1. A - Under $5,000
( ) 2. B - $5,000 but less than $10,000
( ) 3. C - $10,000 but less than $20,000
( ) 4. D - $20,000 but less than $30,000
( ) 5. E - $30,000 but less than $40,000
( ) 6. F - $40,000 or more?
( ) 7. *refused*
( ) 8. *Don't know*

☐ 72

Thank you for your co-operation.

TERMINATE, THEN FILL IN NEXT PAGE.

Time end _____

length of interview _____

INTERVIEWER'S PAGE

55. *Sex of Respondent*

( ) 1. *Male*
( ) 2. *Female*

☐ 73

56. *Ontario Location*

( ) 1. *North - Postal Code starts with P.*
( ) 2. *South - Postal Code starts with L,M,N, or K.*

☐ 74

57. *Respondent I.D.*

Letter ☐ *4 Digits* ☐☐☐☐ *2 Digits* ☐☐ _____ *Telephone number*

58. *City of Respondent* _____

Interviewer Signature _____

---

59. ***Selected for Interviewer Verification.***

( ) 1. *Yes*
( ) 2. *No*

60. *Selected for Coder Verification*

( ) 1. *Yes*
( ) 2. *No*

61. *Interviewer Verification code #1* _____ ☐☐ 75 76

62. *Interviewer Verification code #2* _____ ☐ 77